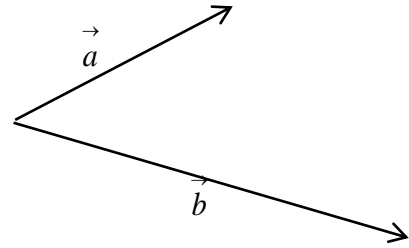


Use the figure to the right.  $\theta$  is the angle formed by the two vectors.

Find: (a) the magnitude of the resultant

(b) the measure of the angle that the resultant make with  $\vec{a}$



Round answers to the nearest hundredth.

$$\begin{aligned} \|\vec{a}\| &= 7\text{cm} \\ 1. \quad \|\vec{b}\| &= 11\text{cm} \\ \theta &= 73^\circ \end{aligned}$$

$$\begin{aligned} \|\vec{a}\| &= 8\text{ft} \\ 2. \quad \|\vec{b}\| &= 2\text{ft} \\ \theta &= 41^\circ \end{aligned}$$

$$\begin{aligned} \|\vec{a}\| &= 9\text{in} \\ 3. \quad \|\vec{b}\| &= 20\text{in} \\ \theta &= 163^\circ \end{aligned}$$

answers:

$$1) \quad \|\vec{a} + \vec{b}\| = 14.66\text{cm}; B = 45.87^\circ \quad 2) \quad \|\vec{a} + \vec{b}\| = 9.6\text{ft}; B = 7.85^\circ \quad 3) \quad \|\vec{a} + \vec{b}\| = 11.69\text{in}; B = 150.06^\circ$$